

Washington State Building Code Council • Code Change Cycle 2021 Group 2

2021 International Mechanical Codes Significant Change Review Worksheet

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
2021 INTERNATIONAL MECHANICAL CODE							
Chapter 1 Scope and Administration							
TAG Member Assigned: Jeff Yirak							
101	101	Scope and General Requirements	Name change.	N	N	N	Adopt (12/16/21)
101.2	101.2	Scope	Clarifies three stories are defined from ground plane level. Existing State Amendment Staff Recommendation: Update to latest editions of NFPA 54 (2021) and NFPA 58 (2020) Modify per staff recommendation	N	N	N	Adopt (12/16/21)
101.3	101.3	Purpose	Minor rewording.	N	N	N	Adopt (12/16/21)
103	103	Code Compliance Agency	Creates the code compliance agency as the code official, with specific function for implementation, administration, and enforcement of provisions of this code.	N	N	N	Adopt (12/16/21)
104.8	103.4	Liability	Relocated from elsewhere in the code.	N	N	N	Adopt (12/16/21)
Deleted	106.3.1	Construction Documents	This was relocated to section 110.	N	N	N	Adopt (12/16/21)
106.3.1 106.3.2	106.3.2 106.3.3	Preliminary Inspection, Time limitation of application	Renumbered.	N	N	N	Adopt (12/16/21)
106.4.6 106.4.7	106.4.7 106.4.8	Previous approvals, Posting of permit	Renumbered.	N	N	N	Adopt (12/16/21)
107	110	Temporary Equipment, Systems and Uses	Renumbered.	N	N	N	Adopt (12/16/21)

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108	107	Inspections and Testing	Renumbered.	N	N	N	Adopt (12/16/21)
109	106.5	Fees	Relocated into its own section.	N	N	N	Adopt (12/16/21)
109.1	106.5	Payment of fees.	Minor rewording.	N	N	N	Adopt (12/16/21)
109.2	106.5.2	Schedule of permit fees.	This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility.	N	N	N	Adopt (12/16/21)
109.3	N/A	Permit valuations.	This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility. Adds authority for the code official to challenge the attested value of the work as a function of the permit valuation.	N	N	N	Adopt (12/16/21)
109.4	106.5.1	Work commencing before permit issuance	Changes prescriptive requirement of "100% of the usual permit fee" to a fee established by the code official. This could be higher or lower than 100% of the usual permit fee.	N	Y	N	Adopt (12/16/21)
109.5	N/A	Related fees	Reminds the applicate that all permits and fees are required.	N	N	N	Adopt (12/16/21)
109.6	106.5.3	Refunds	Authorizes code official authority to establish a refund policy. This removes prescriptive stipulations regarding refund amounts or timeliness, giving the code official more flexibility.	N	N	N	Adopt (12/16/21)
110	106.3.1 106.4.6	Construction Documents	Relocated to its own section. Adds digital format as an acceptable means of contract document submittal.	N	N	N	Adopt (12/16/21)
111	107.4 107.4.1	Notice of Approval	Renumbered.	N	N	N	Adopt (12/16/21)
112.1	107.6 107.5	Connection of service utilities	Relocated to a new section.	N	N	N	Adopt (12/16/21)

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112.2	107.5	Temporary connection	Expands the definition of a temporary source connection and grants authorization by the code official without needing a temporary certificate of occupancy.	N	N	N	Adopt (12/16/21)
112.3	N/A	Authority to disconnect service utilities	Grants the code official the authority to disconnect service utilities to eliminate immediate hazard to life or property or where such utility connection has been made without approval.	Y	N	N	Adopt (12/16/21)
113	N/A	Stop Work Order	New section	N	N	N	Adopt (12/16/21)
113.1	N/A	Authority	Grants the code official the authority to issue a stop work order if work is not performed per this code or in a dangerous or unsafe manner.	Y	N	N	Adopt (12/16/21)
113.2	N/A	Issuance	Describes how to issue the stop work order.	N	N	N	Adopt (12/16/21)
113.3	N/A	Emergencies	Provides exception to providing written notice if an emergency exists. Does not define an emergency.	N	N	N	Adopt (12/16/21)
113.4	N/A	Failure to comply	Any person who does not stop work after being served a stop work order, with exception, shall be subject to fines established by the authority having jurisdiction. Since authority having jurisdiction isn't defined, recommend modifying to refer to code official in lieu of authority having jurisdiction.	N	N	Y	Adopt with modification (12/16/21)
114	109	Means of Appeals	Renumbered from previous section and expanded.	N	N	N	Adopt (12/16/21)
114.1	N/A	General	Defines who creates the board of appeals and its purpose. Does away with most prescriptive procedural articles found in 2018 IMC.	N	N	N	Adopt (12/16/21)

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114.2	109.1	Limitations on authority	Minor revisions to 2018 paragraphs.	N	N	N	Adopt (12/16/21)
114.3	109.2.1	Qualifications	Defines the board to be made up of qualified members and not employees of the jurisdiction. Removes stipulated qualifications based on experience.	N	N	N	Adopt (12/16/21)
114.4	N/A	Administration	Directs the code official to take immediate action in accordance with the decision of the board.	N	N	N	Adopt (12/16/21)
115	108	Violations	Section is renumbered.	N	N	N	Adopt (12/16/21)
Chapter 2 Definitions							
TAG Member Assigned: Andrea Smith							
202	202	Balanced Ventilation	New definition added to IMC Keep Balanced Whole House Ventilation definition rather than the ICC's 2021 definition of balanced ventilation	N	N	N	Table
		Balanced Whole House Ventilation	Existing Amendment 2021 IMC adds a new definition for Balanced ventilation that is similar but missing the second sentence Staff recommendation: Remove state amendment. Second sentence is a code exception that should be moved to Chapter 4. Accept staff recommendation				Table discussion until ventilation section is reviewed and discussed (12/16/21)

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			Balanced whole house ventilation. Any combination of concurrently operating residential unit mechanical exhaust and mechanical supply whereby the total mechanical exhaust airflow rate is within 10 percent or 5 cfm, whichever is greater, of the total mechanical supply airflow rate. <u>Intermittent dryer exhaust, intermittent range hood exhaust, and intermittent toilet room exhaust airflow rates above the residential dwelling or sleeping unit minimum ventilation rate are exempt from the balanced airflow calculation.</u> [2021 IMC] BALANCED VENTILATION. Any combination of concurrently operating mechanical exhaust and mechanical supply whereby the total mechanical exhaust airflow rate is within 10 percent of the total mechanical supply airflow rate.				
202	202	Ceiling Radiation Dampers	New definition added to IMC Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Direct Evaporative Cooling	New definition added to IMC Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Flammability Classification (Refrigerant)	Creates flammability classifications Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Indirect Evaporative Cooling	New definition added to IMC Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Large-Diameter Ceiling Fan	New definition added to IMC Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Press-Connect Joint	Added "bite ring" to definition Adopt change in definition	N	N	N	Adopt (12/16/21)
202	202	Refrigerant Safety Group Classification	Creates safety classification based on flammability and toxicity Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Toxicity Classification (Refrigerant)	Creates toxicity classifications Adopt definition	N	N	N	Adopt (12/16/21)
202	202	Unvented Alcohol Fuel-Burning Decorative Appliance	New definition added to IMC Adopt definition	N	N	N	Adopt (12/16/21)

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		Distributed whole house ventilation	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Local exhaust	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Permanent construction	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Relief air	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Replacement air	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Whole house ventilation system	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)
		Ventilation zone	Existing Amendment WA only language Staff Recommendation: Retain state amendment Keep existing amendment				Retain (12/16/21)

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Chapter 3 General Regulations							
TAG Member Assigned: Andrea Smith							
301.18	301.18	Seismic resistance	Adds anchoring and bracing to seismic resistance requirements	N	M	N	Adopt (12/16/21)
304.11	304.11	Guards	Guard shall extend not less than 30 inches beyond each end of components that require service and each end of the roof hatch parallel to the roof edge // Adds reference to standards the exception should meet.	N	N	N	Adopt (12/16/21)
306.5	306.5	Equipment and appliances on roofs or elevated structures	Existing State Amendment Modifies heights to match WISHA standards				Retain (12/16/21)
306.6	306.6	Appliances above ceilings	Existing State Amendment WA only language				Retain (12/16/21)
307.1.1	N/A	Identification	Requires end of piping to be marked so it's easily determined if it is connected to primary or secondary drain	N	N	N	Adopt (12/16/21)
307.2.1.1	N/A	Condensate discharge	Condensate drains cannot connect to any plumbing drain, waste, or vent pipe. Shouldn't discharge into plumbing fixtures other than those listed.	Y	N	N	Adopt (12/16/21)
307.2.2	307.2.2	Drain pipe materials and sizes	Adds ABS, CPVC, galvanized steel, PE-RT, polypropylene, and PVDF as components of systems and determines appropriate size of piping.	N	N	N	Adopt (12/16/21)

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307.2.3	307.2.3	Auxiliary and secondary drain systems	Existing State Amendment Added exception to the requirement for water-level detection devices for unducted fan coil units Staff Recommendation: Retain existing Amendment Keep existing amendment				Retain (12/16/21)
307.2.3.3	N/A	Identification	Requires the end of condensate piping is marked to indicate which drain pipe it is connected to.	N	N	N	Adopt (12/16/21)
307.2.4.1	307.2.4.1	Ductless mini-split system traps	Existing State Amendment Adds allowance for other means of condensate drainage Staff Recommendation: Retain existing amendment Keep existing amendment				Retain (12/16/21)
Chapter 4 Ventilation							
TAG Member Assigned: Mike Lubliner, Tom Jensen, Nancy Bernard							
401.2	401.2	Ventilation required		Y			
401.4	401.4	Intake opening location		Y			
403.1	403.1	Ventilation system		Y			
403.2.1	403.2.1	Recirculation of air, exception 2		N			
Table 403.3.1.1	Table 403.3.1.1	Minimum Ventilation Rates		N			
Table 403.3.1.1	Table 403.3.1.1	Note G below table		Y			
403.3.1.3	403.3.1.3	System operation		Y			

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403.3.1.5	403.3.1.5	Balancing		N			
403.3.2.1	403.3.2.1	Outdoor air for dwelling units		Y			
403.3.2.5	403.3.2.5	Ventilating equipment		N			
407.1	407.1	General		N			
Chapter 5 Exhaust Systems							
TAG Member Assigned: Mike Lubliner, Tom Jensen, Nancy Bernard							
501.2	501.2	Independent system required		N			
501.3.1	501.3.1	Location of exhaust outlets		Y			
502.4	502.4	Stationary storage battery systems		N			
502.9.5	502.9.5	Flammable and combustible liquids		N			
502.20.1	N/A	Operation		Y			
504.4.1	N/A	Termination location		Y			
504.6	N/A	Booster fans prohibited		N			
505.3	505.3	Exhaust ducts		N			
506.3.7	506.3.7	Prevention of grease accumulation in grease ducts		Y			
506.3.9	506.3.9	Grease duct horizontal cleanouts		N			

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506.5.2	506.5.2	Pollution-control units		N			
507.1	507.1	General		Y			
507.6.1	507.6.1	Capture and containment test		N			
N/A	510.4	Independent system		N			
510.5.5	510.6.5	Makeup air		N			
511.1	511.1	Dust, stock, and refuse conveying system		N			
511.1.5	511.1.5	Explosion control		N			
514.2	514.2	Prohibited applications		Y			
Chapter 6 Duct Systems							
TAG Member Assigned: Tom Jensen, Nancy Bernard							
Chapter 7 Combustion Air							
TAG Member Assigned: Mark Raebel							

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			Chapter 7 defers to IFGC and therefor chapter 7 is brief.				
			No updates on this code cycle.				
Chapter 8 Chimneys and Vents							
TAG Member Assigned: Mark Raebel							
801.21	NA	Blocked Vent Switch.	<p>This is an added section for 2021.</p> <ul style="list-style-type: none"> • Appears to add requirement that oil fired appliances be equipped with a device to stop burner operation in even of an obstructed vent. • Seems like there is potential for nuisance trips. • Maybe shut down a system in a cold space that is vacant causing water to freeze. • Potentially eliminate potential for buildup of combustion fumes • Based on temperature of flue. 	Y	Y	N	Adopt (12/16/21)
804.3.4			walk-way to walkway				
805	805		<p>Renumbering of 805 sections. 805.3 thru 805.8</p> <p>Added 805.3 to factory built fire places. Appears to add requirement to comply with UL 127</p>	N	N	N	Adopt. (12/16/21)
Chapter 9 Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment							
TAG Member Assigned: Mark Raebel							

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905.1	905.1		<p>Added following line. "New wood-burning residential hydronic heaters shall be EPA certified.</p> <ul style="list-style-type: none"> • Seems to add cost to produce equipment to meet EPA standards. • Not sure how many solid fuel hydronic boilers are out there. • I do not have much experience with this type of equipment. 	Y	Y	N	Adopt. (12/16/21)
918.2	918.2		<ul style="list-style-type: none"> • Added "or UL/CSA 60335-2-40" • This is a testing and certification standard for equipment with refrigerant. • Appears to be more rigorous testing • Have not been exposed to this level of testing standards appears to be more for manufactures of equipment. 	n		N	Adopt (12/16/21)
920.4	NA		<p>Prohibited uses for unit heaters. Ambulatory care facilities, corridors. Exits access stairways patient sleeping areas.</p> <p>Appears to be trying to get suspended units out of access paths for nursing homes type areas.</p> <p>Maybe wanting these places to have filtration while circulating the air to heat.</p>			Y?	Type of heater? Further research

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929.1	NA		Unvented alcohol fuel burning appliances. Also added definition for unvented alcohol in section 202. Appears to provide guidance for a new type of product that is becoming popular.	Y		N	Adopt (12/16/21)
930.1	929.1		Revise to be more accurate. Added "ceiling" to clarify large diameter fans.			N	Adopt (12/16/21)
Chapter 10 Boilers, Water Heaters and Pressure Vessels							
TAG Member Assigned: Chris McCarthy							
1004	1004	Boilers	Change to "less than" 12,500,000 BTU/hr from "or less"	N		N	Adopt (12/16/21)
1000	1000	Informative Note	Existing Amendment Adds pointer to L&I boiler requirements Staff Recommendation: Retain state amendment Informational note is needed to advise of L&I jurisdiction				Retain (12/16/21)t
1001.1	1001.1	Scope	Existing Amendment Helps clarity that boilers are under L&I rules Staff Recommendation: Retain state amendment Same as above, establishes L&I jurisdiction on boilers				Retain (12/16/21)t
Chapter 11 Refrigeration							
TAG Member Assigned: Jeff Yirak, Brandon Stock							
1101.1	1101.1	Scope	Clarifies language.	N	N	N	Adopt (12/16/21)

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1101.1.1	N/A	Refrigerants other than ammonia	Differentiates between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter.	N	N	N	Adopt (12/16/21)
1101.1.2	N/A	Ammonia refrigerant	Differentiates between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter.	N	N	N	Adopt (12/16/21)
1101.2	1101.2	Factory-built equipment and appliances	Provides a table to correlate equipment with relevant UL or UL/CSA standard. Delete Existing State Amendment	N	N	Delete existing amendment	Adopt (12/16/21)
Deleted	1101.6	General	Redundant differentiation between ammonia and non-ammonia refrigeration systems, as ammonia systems are no longer required to comply with this chapter. Delete Existing State Amendment	N	N	Delete existing amendment	Adopt (12/16/21)
1101.6	1101.7	Maintenance	Renumbered	N	N	N	Adopt (12/16/21)
1101.7	1101.8	Change in refrigerant type	Renumbered	N	N	N	Adopt (12/16/21)
1101.8	1101.9	Refrigerant discharge	Renumbered	N	N	N	Adopt (12/16/21)
1101.9	1101.10	Locking access port caps	Renumbered	N	N	N	Adopt (12/16/21)
1103.1	1103.1	Refrigerant classification	Added additional and LGW refrigerants. Fixed typographical error on R-452A ppm refrigerant per occupied space. Removed ammonia entry and revised footnotes.	N	N	N	Adopt (12/16/21)
1104.2.2	1104.2.2	Industrial occupancies and refrigerated rooms	References to ammonia removed for consistency.	N	N	N	Adopt (12/16/21)
1104.3.2	1104.3.2	Nonindustrial occupancies	Clarifies definition of type of assembly area	N	N	N	Adopt (12/16/21)

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1104.3.3	1104.3.3	All occupancies	References to ammonia removed for consistency.	N	N	N	Adopt (12/16/21)
1104.3.4	1104.3.4	Protection from refrigerant decomposition.	References to ammonia removed for consistency.	N	N	N	Adopt (12/16/21)
1105.6.3	1105.6.3	Ventilation rate	Existing State Amendment References to ammonia removed for consistency.	N	N	Delete existing amendment	Adopt (12/16/21)
Deleted	1105.8	Ammonia discharge	References to ammonia removed for consistency.	N	N	N	Adopt (12/16/21)
1105.8	1105.9	Emergency pressure control system	Proposed language defers to IFC. Section 605.10 needs to be updated to 608.11 for 2021 IFC. IFC also refers to ammonia systems; IMC should explicitly except ammonia systems in this article.	N	N	Y	Add explicit exception for ammonia systems when referring to IFC. (12/16/21)
1105.9	N/A	Means of egress	Consolidates existing requirements from the IBC into the IMC for ease of reference.	N	N	N	Adopt (12/16/21)
Deleted	1106.3	Ammonia room ventilation	References to ammonia removed for consistency.	N	N	N	Adopt (12/16/21)
1106.3	1106.4	Flammable refrigerants	Clarification to exception regarding compliant ventilation.	N	N	N	Adopt (12/16/21)
1106.4	1106.5	Special requirements for Group A2L refrigerant machinery rooms	Further qualification of the existing allowance for machinery rooms containing A2L refrigerants to use refrigerant detection and ventilation systems in lieu of Class I, Division 2 hazardous location classification requirements of NFPA 70.	N	N	N	Adopt (12/16/21)
1106.4.1	1106.5.1	Ventilation system activation	Proposed language defers to IFC. Section 605.8 needs to be updated to 608.9 for 2021 IFC. IMC repeats the "at or below a refrigerant concentration" activation condition, but IFC includes an additional refrigerant leak alarm condition.	N	N	Y	Adopt but remove the redundant detection and activation language. (12/16/21)

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1106.4.2	1106.5.2	Emergency ventilation system	Existing State Amendment Renumbered Staff recommendation: Retain and renumber existing state amendment Retain per staff recommendation	N	N		Retain state amendment (12/16/21)
1106.4.3	1106.5.3	Emergency ventilation system discharge	Renumbered	N	N	N	Adopt (12/16/21)
1106.5	1106.6	Remote controls	Renumbered	N	N	N	Adopt (12/16/21)
1106.5.1	1106.6.1	Refrigeration system emergency shutoff	Renumbered	N	N	N	Adopt (12/16/21)
1106.5.2	1106.6.2	Ventilation system	Renumbered	N	N	N	Adopt (12/16/21)
1106.6	1106.7	Emergency signs and labels	Renumbered	N	N	N	Adopt (12/16/21)
1107.1	New	Piping Material	1107.1 Piping. Refrigerant piping material for other than R-717 (ammonia) systems shall conform to the requirements in this section. Piping material and installations for R-717 (ammonia) refrigeration systems shall comply with IIAR 2.	Y		N	Adopt (12/16/21)
1107.2	New	Used Materials	1107.2 Used materials. Used pipe, fittings, valves and other materials that are to be reused shall be clean and free from foreign materials and shall be approved for reuse.	Y		N	Adopt (12/16/21)

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1107.3	New	Materials Rating	1107.3 Materials rating. Materials, joints and connections shall be rated for the operating temperature and pressure of the refrigerant system. Materials shall be suitable for the type of refrigerant and type of lubricant in the refrigerant system. Magnesium alloys shall not be used in contact with any halogenated refrigerants. Aluminum, zinc, magnesium and their alloys shall not be used in contact with R-40 (methyl chloride).	Y		N	Adopt (12/16/21)
1107.4	New	Piping materials standards	1107.4 Piping materials standards. Refrigerant pipe shall conform to one or more of the standards listed in Table 1107.4. The exterior of the pipe shall be protected from corrosion and degradation.	Y		N	Adopt (12/16/21)
1107.5	New	Pipe Fittings	1107.5 Pipe fittings. Refrigerant pipe fittings shall be approved for installation with the piping materials to be installed, and shall conform to one of more of the standards listed in Table 1107.5 or shall be <i>listed and labeled</i> as complying with UL 207.	Y		N	Adopt (12/16/21)
1107.6	New	Valves	1107.6 Valves. Valves shall be of materials that are compatible with the type of piping material, refrigerants and oils in the system. Valves shall be <i>listed and labeled</i> and rated for the temperatures and pressures of the refrigerant systems in which the valves are installed.	Y		N	Adopt (12/16/21)
1107.7	New	Flexible connectors, expansion and vibration compensators	1107.7 Flexible connectors, expansion and vibration compensators. Flexible connectors and expansion and vibration control devices shall be <i>listed and labeled</i> for use in refrigerant systems.	Y		N	Adopt (12/16/21)

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1108.1,2,3,4,5,6,7,8,9	New	Joints and Connections	New Section – renamed from field test to Joints and connections	Y		N	Adopt (12/16/21)
1109.1,2,3,4,5,6,7,8	New	Refrigerant Pipe Installation	New Section	Y		N	Adopt (12/16/21)
1110.1,2,3,4,5,6,7,8	New	Refrigeration Piping System Testing	New Section	Y		N	Adopt (12/16/21)
1111	New	Periodic Testing	Renumbered section that is not currently in the WAC/RCW	Y	Y	N	Adopt (12/16/21)
Chapter 12 Hydronic Piping							
TAG Member Assigned: Chris McCarthy							
1202.4	1202.4	Table 1202.4	Addition of table line for CPVC/AL/CPVC	N		N	Adopt (12/16/21)
1202.5	1202.5	Table 1202.5	Addition of table line for CPVC, as well as removal of 2 ASTM standard references on Plastic line.	N		N	Adopt (12/16/21)
1203.8	NA	CPVC/AL/CPVC joints	Outlines acceptable pipe joints in CPVC/AL/CPVC piping, also adjusts numbering of sections through 1203.17.2	N		N	Adopt (12/16/21)
1203.10.3	1203.9.3	Push Fit Fittings PEX	Changes from EVOH reference to ASSE 1061 and names PEX tubing	N		N	Adopt (12/16/21)
1203.15.3	1203.14.3	Push fit fittings PE-RT	Similar to above but for PE-RT tubing	N		N	Adopt (12/16/21)
1209.5	1209.5	Insulation and thermal break required	Changes verbiage from “thermal barrier required” to insulation and thermal break required?	N			Adopt (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
1209.5	1209.5	Thermal barrier	Existing state amendment Staff recommendation: retain state amendment (as shown in the expedited rule) Verbiage change from “thermal barrier” to “insulation and thermal break.” Should this be captured?				Retain state amendment, with update to thermal barrier language (12/16/21)
1209.5.2	1209.5.2	Insulation material marking	Changes verbiage from “thermal barrier” to “Insulation material” and adds radiant floor heating.	N		N	Adopt (12/16/21)
1210.6.2	1210.6.2	Prep. of pipe ends	Removes requirement to ream pipe cuts and removes references to pipe type. Adds manufacturers instruction piece.	N		N	Adopt (12/16/21)
1210.7.6	1210.7.6	Expansion tanks	Existing state amendment Adds requirement for draining the expansion tank Staff recommendation: Retain state amendment Retain state amendment				Retain state amendment (12/16/21)
1210.8	1210.8	Installation	Changes “conditions of approval” to “manufacturers instructions”.	N		N	Adopt (12/16/21)
Chapter 13 Fuel Oil Piping and Storage							
TAG Member Assigned: Staff							
1301.4	Same	Fuel tanks, piping, fittings and valves	Adds “fittings” to the scope.	N	N	N	Adopt (12/16/21)
Table 1302.3	Same	Fuel Oil Piping and Fittings	“Fittings” was added to copper and steel piping rows, and stainless was added to the steel piping and tubing rows, with the appropriate standards added	N	N	N	Adopt (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
1302.8	Same	Flexible connectors and hoses	Reference to UL 536 was deleted as irrelevant; replaced with listed and labeled as being acceptable for the application	N	N	N	Adopt (12/16/21)
1302.9	New	Piping systems	Adding a reference standard for stainless steel double containment tubing for both above ground and underground systems	N	N (could decrease cost)	N	Adopt (12/16/21)
1303.3	Same	Joint preparation and installation	Adds press-connect joints	N	N	N	Adopt (12/16/21)
1303.3.2; 1303.3.5	New	Mechanical joints/Press-connect joints	Adds a new section for press-connect joints to distinguish from mechanical joints	N	N	N	Adopt (12/16/21)
1303.4	Same	Copper or copper alloy pipe	Adds press-connect joints as acceptable for copper or copper alloy pipes as currently allowed in the standard referenced in Table 1302.3	N	N	N	Adopt (12/16/21)
1303.5	Same	Copper or copper alloy tubing	Editorial — General language clean up	N	N	N	Adopt (12/16/21)
1303.7/ 1303.8	Same	Steel pipe/Steel tubing	Adds stainless steel and press connect joints to conform with change to Table 1302.3	N	N	N	Adopt (12/16/21)
Chapter 14 Solar Thermal Systems							
TAG Member Assigned: Mark Raebel, Brandon Stock							
1402.8.1. 2	Same	Rooftop-mounted solar thermal collectors and systems	Added “mounting systems and their attachments to the roof” to the noncombustible requirement in this section. Existing State Amendment Staff recommendation: Delete state amendment; covered by new 2021 language.	N		N	Adopt; remove state amendment. (12/16/21)
1404.1	Same	Collectors	Added clarification to solar collector numbering and verbiage.	N		N	Adopt (12/16/21)
Chapter 15 Referenced Standards							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
TAG Member Assigned: Staff							
		ANCE 60335-2-40-2019	Existing State Amendment Retain state amendment (although it is listed under UL without the ANCE reference, but as the 2017 edition)			Y	Retain (12/16/21)
		ANSI/ACCA 10	Adds HVAC standard for swimming pools and spas as referenced in 403.2.1	N	N	N	Adopt (12/16/21)
		ASHRAE 15-2019	Existing State Amendment Delete state amendment—standard is updated to the same version in the 2021 edition			N	Delete amendment (12/16/21)
		ASHRAE 34-2019	Existing State Amendment Delete state amendment—standard is updated to the same version in the 2021 edition			N	Delete amendment (12/16/21)
		ASHRAE 62.2-2016	Existing State Amendment Retain state amendment, but update to 2019			Y	Retain (12/16/21)
		ASHRAE 90.1	Added as an alternate compliance method in 401.2	N	N	N	Adopt (12/16/21)
		ASME	Four new standards added as referenced in the new refrigerant piping materials and joints and connections sections in Chapter 11: B1.1-2003 Unified Inch Screw Threads B1.13M-2006 Metric Screw Threads B1.20.3-1976 Dryseal Pipe Threads B16.50-2018 Copper & Copper alloy fittings	N	N	N	Adopt (12/16/21)
		ASSE 1079	Corresponds to new refrigeration joints and connections section: Performance requirements for dielectric pipe unions	N	N	N	Adopt (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
		ASTM	<ul style="list-style-type: none"> New standards added as referenced in the new refrigerant piping materials and joints and connections sections in Chapter 11: A181/A181M-14 Carbon Steel Forgings A193/A193M-19 Alloy & Stainless Steel Bolting A334/A334M-04a(2016) Seamless and Welded Carbon and Alloy Steel Tubes A707/A707M-19 Forged Carbon and Alloy Steel Flanges B210/B210M-19a Aluminum and Aluminum Alloy Drawn Seamless Tubes B361-16 Factory-made Wrought Aluminum Welding Fittings B491/491M-15 Aluminum Extruded Round Tubes B1003-16 Seamless Copper Tubes for Linesets Various other new standards for Chapters 12 and 13: Ch 12: F2855-12 CPVC-AL-CPVC Composite Pressure Tubing F3253-2017 PEX Tubing with Oxygen Barrier Ch13: A240/A240M-17 Chromium and Chromium Nickle Stainless Steel for Pressure Vessels A269-15 Seamless and Welded Austenitic Stainless Steel Pipes A312-17 Seamless, Welded and Heavily Cold Worked Austenitic Stainless Steel Pipes F3226-16 Metallic Press-Connect Fittings 	N	N	N	Adopt (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
		CSA 60335-2-40-2019	Existing State Amendment Retain state amendment (although it is listed under UL without the ANCE reference, but as the 2017 edition)			Y	Retain (12/16/21)
		HVI 915/916/920-2015	Existing State Amendment Retain state amendment but update to the 2020 edition			Y	Retain (12/16/21)
		NFPA	Three new NFPA standard as referenced by other code changes (407.1, 607.4.1.2): 80-19 Standard for Fire Doors and Other Opening Protectives 99-21 Health Care Facilities Code 105-19 Standard for Smoke Door Assemblies and Other Opening Protectives	N	N	N	Adopt (12/16/21)
		NSF	Two new standards as referenced by other code changes (1210.4, 1210.5) and one added missing reference (NSF 14): 14-2017 Plastic Piping System Components and Related Materials 358-3-2016 PEX Pipe and Fittings for Water Based Ground Source Heat Pumps 358-4-2017 OE-RT Pipe and Fittings for Water Based Ground Source Heat Pumps	N	N	N	Adopt (12/16/21)
		SMACNA	Add two missing referenced standards (510.8.1): SMACNA/ANSI—2011 Rectangular Industrial Duct Construction Standards, 2 nd Edition SMACNA/ANSI—2013 Round Industrial Duct Construction Standards, 3 rd Edition	N	N	N	Adopt (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
		UL	<ul style="list-style-type: none"> New standards from refrigeration changes: 109-97 Tube fittings for Flammable and Combustible Fluids, Refrigeration Service and Marine Use 427-11 Standard for Refrigerating Units 474-15 Standard for Dehumidifiers 484-14 Standard for Room Air Conditioners New standard based on change to 1302.9: 971A—2006 Outline of Investigation for Metallic Underground Fuel Pipe 1369-18 Standard for Aboveground Piping for Flammable and Combustible Liquids Other new standards: 1370-11 Unvented Alcohol Fuel Burning Decorative Appliances (with revisions through March 25, 2016) (929.1) 8782-17 Outline of Investigation for Pollution Control Units for Commercial Cooking (506.5.2) UL/CSA 60335-2-40-17 Household and Similar Electrical Appliances—Safety—Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers (908.1, 916.1, 918.1, 918.2) UL/CSA 60335-2-89-17 Household and Similar Electrical Appliances—Safety—Part 2-89: Particular Requirements Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor (T 1101.2) 	N	N	Y 60335-2-40 Should reference 2019 as in existing state amendment; Reference to 1101.2 for this standard	Adopt as noted (12/16/21)
		General edition updates	AHRI 700, ANSI Z21.1, ANSI/AMCA 210/ASHRAE 51, ASHRAE 62.1/62.2, ASHRAE 180, ASHRAE Fundamentals Handbook, ANSI/ASSP Z359.1, AWWA 151, IBC, ICC 900, ICC 901, IECC, IFC, IFGC,			Y UL 864 (existing amendment) should be	Adopt as indicated (12/16/21)

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
			IRC, ANSI/IIAR 3, ANSI/IIAR 4, ANSI/IIAR 5, MSS SP58, NBBI AH116, NSF 358-1, NSF 358-2, ASTM A53, A105, A106, A234, A254, 420, B135, B251, B280, B302, B813, B819, B828, C315, C411, D56, D93, D1785, D2235, D2412, D2466, D2564, D2846, D2996, D3261, E84, E119, E136, E814, E1509, E2231, F438, F879, F877, F1055, F1282, F1548, F1807, F1960, F2159, F2389, F2735, F2769 CSA 151, CSA B137.1, B137.2, B137.3, B137.5, B137.6, B137.9, B137.10, B137.11, B137.18, C22.2 No. 218.1, C22.2 No. 236 NFPA 1, 30A, 31, 58, 69, 70, 72, 82, 85, 91, 92, 96, 211, 262, 286, 853 UL 268, 412, 471, 499, 507, 508, 536, 555, 555C, 555S, 641, 705, 710, 723, 727, 731, 732, 834, 858, 864, 867, 875, 923, 1046, 1240, 1261, 1563, 1618, 1812, 1815, 1820, 1887, 1978, 1995, 2043, 2075, 2158, 2158A, 2523			updated to standard referenced in 2021 IMC with a reference to Section 606.2.2 added to the citation	
2021 INTERNATIONAL FUEL GAS CODE							
Chapter 1 Scope and Administration							
TAG Member Assigned: Valerie Graber							
Chapter 2 Definitions							
TAG Member Assigned: Valerie Graber							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 3 General Regulations							
TAG Member Assigned: Valerie Graber							
Chapter 4 Gas Piping Installations							
TAG Member Assigned: Valerie Graber							
Chapter 5 Chimneys and Vents							
TAG Member Assigned: Valerie Graber							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 6 Specific Appliances							
TAG Member Assigned: Valerie Graber							
Chapter 7 Gaseous Hydrogen Systems							
TAG Member Assigned: Valerie Graber							
Chapter 8 Referenced Standards							
TAG Member Assigned: Valerie Graber							
2021 INTERNATIONAL RESIDENTIAL CODE, Chapters 12 - 24							
Chapter 12 Mechanical Administration							
TAG Member Assigned: Jeff Yirak							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 13 General Mechanical System Requirements							
TAG Member Assigned: Mike Lubliner							
Chapter 14 Heating and Cooling Equipment and Appliances							
TAG Member Assigned: Jeff Yirak, Mike Lubliner							
Chapter 15 Exhaust Systems							
TAG Member Assigned: Nancy Bernard, Mike Lubliner							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 16 Duct Systems							
TAG Member Assigned: Nancy Bernard							
Chapter 17 Combustion Air							
TAG Member Assigned: Nancy Bernard							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 18 Chimneys and Vents							
TAG Member Assigned: Staff							
Chapter 19 Special Appliances, Equipment and Systems							
TAG Member Assigned: Andrea Smith							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 20 Boilers and Water Heaters							
TAG Member Assigned: Chris McCarthy, Brandon Stock							
Chapter 21 Hydronic Piping							
TAG Member Assigned: Chris McCarthy							
Chapter 22 Special Piping and Storage Systems							
TAG Member Assigned: Staff							

2021 Code Section	2018 Code Section	Title or Subject	Reviewer Comments	Sig. Change (Y/N)	Costs (Y/N)	WA Amend Needed (Y/N)	TAG Comments/ Recommendations to MVE Committee
Chapter 23 Solar Thermal Energy Systems							
TAG Member Assigned: Mike Lubliner, Brandon Stock							
Chapter 24 Fuel Gas							
TAG Member Assigned: Valerie Graber							